

**PIGMENT-BASED INK-JET INKS
WITH IMPROVED FREQUENCY RESPONSE**

ABSTRACT OF THE DISCLOSURE

10 Compositions, systems, and methods method of rapidly printing a black
ink-jet image are provided. The composition can include a liquid vehicle including
water, and from 15 wt% to 30 wt% organic solvent, wherein from 3 wt% to 10
wt% of the organic solvent is a methylated pentanetriol co-solvent; and from 1
15 wt% to 6 wt% of a dispersant-functionalized black carbon pigment. Obtaining
firing frequencies from 15 kHz to 25 kHz are feasible with such compositions,
provided the ink-jet architecture used with these pens is capable of firing at these
very rapid rates.

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